NOVEMBER/DECEMBER 2024

BEL61/CEL61 — TELEVISION AND VIDEO ENGINEERING

Time : Three hours Maximum : 75 marks

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SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Define field of vision.

2. What is a composite video signal?

3. Justify the choice of negative modulation for TV transmission.

4. List out the types of TV receiver.

5. Draw Chromaticity diagram.

6. What are the advantages of SECAM system? -

7. What is the function of sound strip?

8. Mention the use of ACC.

9. Why is scrambling needed in Television systems?

10. Distinguish between VCD and DVD.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain the characteristics of a human eye.

Or

(b) Write a note on electron multiplier.

12. (a) Brief the function of Television transmission antenna.

Or

(b) Explain sync processing and AFC circuit.

13. (a) Write short notes on luminance, hue and saturation.

Or

(b) Draw the block diagram of NTSC decoder.

14. (a) With a neat circuit diagram explain burst blanking.

Or

(b) Explain reference subcarrier oscillator with circuit diagram.

15. (a) Illustrate the working of cable TV.

Or

(b) Draw the block diagram of DVD playback system and explain its working.

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SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the construction and working of vidicon camera tube with a neat diagram in detail.

17. Draw the simplified block diagram of a TV transmitter and explain its operation.

18. Draw the block diagram and explain the operation of PAL encoder and decoder.

19. Discuss the function of color killer and ident circuits.

20. Give detailed notes of a digital TV transmission and reception.

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